Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A method for screening patients to determine their ability to respond to a tumor treatment, said method comprising:

- measuring the expression level of at least one ~~of the genes~~ gene ~~predictive for said treatment in patient samples~~ selected from the group consisting of nucleic acids having SEQ ID NOs: 1, 3, 4 and 6; and
- comparing the result of measurement to the result obtained with a reference sample.

2. (Original) A method as in claim 1, wherein patients are patients suffering from tumor.

3. (Original) A method as in claim 2, wherein patients are patients suffering from melanoma cancer.

4. (Original) A method as in claim 3, wherein the tumor treatment includes IFN-α or one of its derivatives.

5. (Currently amended) A method as in claim 4, wherein gene expression is measured directly by DNA analysis with a DNA probe specific to said at least one ~~of the genes predictive for said treatment~~ gene or by determination of the level of mRNA transcription or by determination of the level of said at least one gene ~~product~~.

6. (Currently amended) A diagnostic test for carrying out the method claimed in 1, comprising

- contacting a matrix with probes with a liquid phase containing antibodies or nucleic acid probes
- detecting gene transcription or product of said at least one gene ~~of the genes predictive for the tumor treatment~~.

7. (Original) A diagnostic test as claimed in 6, wherein the matrix comprises nucleic acids and the liquid phase contains target nucleic acid probes.

8. (Withdrawn) A diagnostic test as claimed in 6, wherein the matrix comprises target protein probes and the liquid phase contains antibodies.

9. (Withdrawn) A diagnostic kit for the method as claimed in 1 comprising a container with a matrix with probes.

10. (Withdrawn) A diagnostic kit as claimed in 9 comprising a container with a matrix with nucleic acid probes.

11. (Currently amended) A method for screening the availability of cells or tissues to be sensitive or resistant to tumor treatment, said method comprising:

identifying the ~~identification of~~ gene expression profiles characteristic of said treatment, wherein said gene express profiles includes at least one gene selected from the group consisting of nucleic acids having SEQ ID NOs: 1, 3, 4 and 6; and

determining whether said cells or tissues have present said gene expression profile, wherein presence of said gene expression profile is indicative of the availability of said cells or tissues to be sensitive or resistant to tumor treatment.

12. (Original) A method as in claim 11, wherein the cells originate from cell lines.

13. (Original) A method as in claim 11, wherein the cells originate from tumor cell lines.

14. (Currently amended) An immunological marker enabling the selection of cells responding to a tumor treatment characterized in that ~~it~~ said immunological marker is an antibody specific for product of one or more of the genes ~~predictive for said treatment~~ selected from the group consisting of nucleic acids having SEQ ID NOs: 1, 3, 4 and 6.

15. (Currently amended) A method for determining in a patient sample originating from a tumor, the presence or absence of expression of at least one a gene predictive for treatment of the tumor with IFN-α or a pegylated IFN-α conjugate, said method comprising:

(a) obtaining from a patient having a tumor, a sample containing cells originating from the tumor; and

(b) detecting in the patient sample the expression of the at least one gene, wherein:

each of said at least one gene predictive for said treatment is selected from the group consisting of nucleic acids having SEQ ID NOs: 1, 3, 4 and 6; and

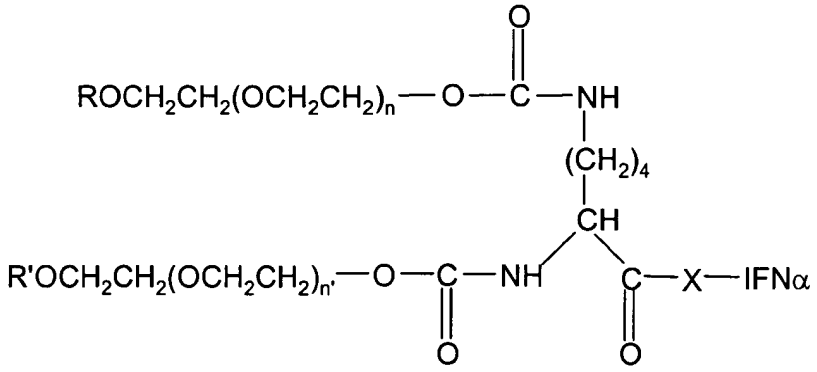
the presence of expression of the at least one gene is predicative of the patient having an ability to respond to the treatment of the tumor using IFN-α or a pegylated IFN-α conjugate.

16. (Original) A method as in claim 15, wherein the tumor is ovary cancer, prostate cancer, breast cancer, colon cancer, liver cancer, stomach cancer or lung cancer.

17. (Original) A method as in claim 16, wherein the patient sample is prepared from blood, urine, serum, lymph node, bone marrow, cell extracts or tissue extracts.

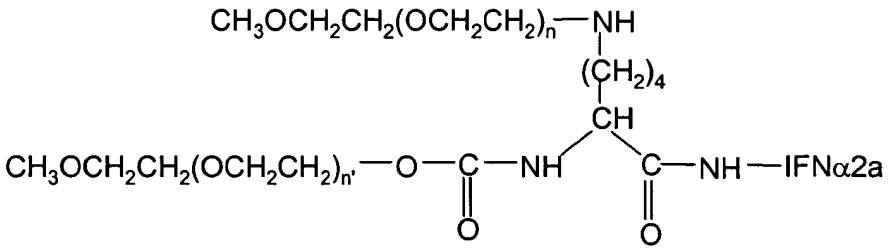
18. (Original) A method as in claim 17, wherein the sample contains melanoma cells.

19. (Original) A method as in claim 18, wherein the pegylated-IFN-α conjugate has the formula:



wherein R and R' are independently lower alkyl; X is NH or O; n and n' are integers having a sum of from 600 to 1500; and the average molecular weight of the polyethylene glycol in said conjugate is from about 26,000 Daltons to about 66,000 Daltons.

20. (Original) A method as in claim 19, wherein the pegylated-IFN-α conjugate has the formula:



wherein n and n' are independently 420 or 520.

21. (Canceled)